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�54 Method and device for matching fingerprints.

�57 A pair candidate list (73) is formed by selecting minutia pairs with reference to a minutia list (71) showing original position and direction data given for minutiae by principal coordinate systems preliminarily selected on a search and a file fingerprint and those relation data of the minutiae which are substantially independent of the coordinate systems. It is very likely that the pair candidate list shows coarse pairs because the coordinate systems may not yet be optimally matched to each other. One of the coordinate systems is transformed by those optimum amounts to provide transformed position and direction data which are decided by the original position and direction data of the minutia pairs of the pair candidate list. A pair list (86) is formed by precisely selecting minutiae from the pair candidate list with reference to the transformed position and direction data and the original position and direction data given by the other principal coordinate system and to the relation data. On forming the pair list, an additional minutia list (81) is preferably formed which shows the transformed position and direction data and the last-mentioned original position and direction data together with the relation data.
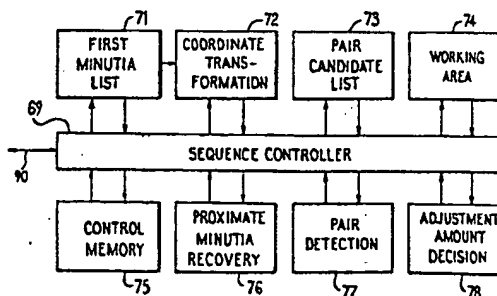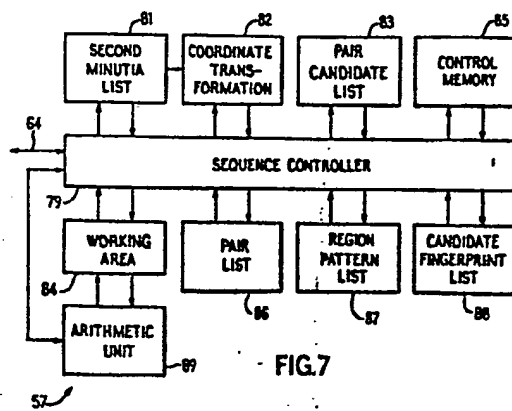
FIG.6

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SECOND MINUTIA LIST	COORDINATE TRANS- FORMATION	PAIR CANDIDATE LIST	CONTROL MEMORY

SEQUENCE CONTROLLER

WORKING AREA	PAIR LIST	REGION PATTERN LIST	CANDIDATE FINGERPRINT LIST

ARITHMETIC UNIT

FIG.7